STAFF REPORT
Application #WPL-10977-20
16 Manitou Road
Prepared April 29, 2020
Public Hearing: May 20, 2020

Application Request: The Applicant is requesting the construction of a new garage, expanded driveway, and modified septic system with associated site improvements within the WPLO area of the Saugatuck River.

Plans reviewed:
1. "Site Development Plan, 16 Manitou Road, Westport, CT Prepared for Alana Fuscaldo," Scale: 1"=20'-0", dated March 12, 2020, prepared by Kousidis Engineering, LLC
2. "Drainage Analysis Located at 16 Manitou Road, Westport, CT Prepared for JJ Fuscaldo," dated March 12, 2020, prepared by Kousidis Engineering, LLC
3. Architectural Plans entitled: " Detached Garage, 16 Manitou Road, Westport, CT*",* (2 sheets), dated November 8, 2019, ¼"=1'-0", prepared by Patricia Mailhot Miller

Property Description:

Location of 25-year flood boundary: 9 ft. contour interval. The lower westerly portion of this parcel is below elevation 9.0'. The WPLO is established 15' landward from the 25-year flood boundary of the Saugatuck River.
Property is situated in Flood Zones AE (el. 13') as shown on F.I.R.M. Panel 09001C0551G Map revised to July 8, 2013.
Proposed garage floor elevation: 13.5'
Total lot area is 48,750 sq. ft.
Proposed Site Coverage: 21.1% (10,250 sq. ft.)
Total Impervious Coverage: 26.2% (12,800 sq. ft. includes patios)
Westport Weston Health District approval: 3/19/20.
No inland wetlands or watercourses onsite per site inspection report from soils scientist Chris Allan of LandTech.

Aquifer: Property underlain by Sherwood Island Aquifer, which is a coarse-grained stratified drift aquifer. The property **is NOT** within the Town's wellfield protection zone

Coastal Area Management: The project is not within the Coastal Area Management Zone.

Proposed Storm Water Treatment: Storm water runoff from the residence is proposed to be discharged to Cultec R-330XLHD Rechargers located to the north of the residence. The proposed driveway and garage stormwater runoff shall be directed to the Cultec R-330XLHD Rechargers, located to the west of the driveway, once it passes through a proposed bio-filtration swale planted with grasses and shrubs. The bio-filtration swale was a requirement for the permit #WPL-10571-18 which was previously approved by the

Commission for house construction. The plantings within the bioswale were bonded as a condition of that permit. These drainage appurtenances will be installed to manage the peak in runoff volume from the property during a 25-year storm event, as well as store the first flush of 1" stormwater for water quality values. The bottom of both drainage systems (proposed bottom elevation 6.50' near driveway and 7.50' on north side of residence) will be above the elevation of groundwater based on test pit data. The USDA classifies the soils as Agawam fine sandy loam (29B) which is a well drained soil as evidenced in the percolation data.

Previous Permits issued:
WPL/E-10970-20: Construction of a pool, pool cabana, and associated site improvements.
WPL/E-10920-19: Installation of two condensing units.
WPL-10571-18: Construct a new single family residence with attached garage, new driveway, new septic system, storm water drainage and other site appurtenance

The Flood and Erosion Control Board **approved** the application with conditions on **May 6, 2020**. The drainage proposal is acceptable to the Engineering Department.

Letter of Map Revision (Based on fill) issued by FEMA on September 18, 2018; 100yr flood zone

Waterway Protection Line Ordinance:
Section 30-93 of the Waterway Protection Line Ordinance states that the applicant shall submit information to the Conservation Commission showing that such activity will not cause water pollution, erosion and/or environmentally related hazards to life and property and will not have an adverse impact on the preservation of the natural resources and ecosystem of the waterway, including but not limited to impact on ground and surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow, natural pollution filtration and decomposition, habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.

Discussion:
Similar to the previous review for the application of the new residence, driveway, and septic installation, **Permit # WPL-10571-18,** the potential for the proposed project to have an adverse impact on the WPLO includes installation of the septic system, driveway, drainage and grading. Those activities proposed within the WPLO are being reviewed to assure there will not be an adverse impact on the preservation of natural resources and the ecosystem of the adjacent waterways which primarily is limited to nutrient loading and storm water quality impacts.

The subject property is located at the northerly most tip of the WPLO boundary.

The previously approved plan reviewed by the Commission included a house and driveway with total site coverage of ~10,100 sq. ft. This included a semicircular portion

of the driveway on the northern side of the residence. The newly proposed configuration results with a site coverage of ~10,250 sq. ft. The coverage remains essentially neutral to allow for a 24' x 24' garage by removing the previously approved circular driveway.

Groundwater should not be encountered for the septic, drainage, or garage as evidenced by the test pit data.. Staff feels that there is benefit to separating the drainage into two units and does not have an issue with the roof leaders of the residence discharging into the Cultec without a biofiltration component. Whereas staff feels the biofiltration is still needed to take up any potential pollutants from the driveway runoff. Staff feels that the reconfiguration of the driveway will still allow the bio-filtration swale to actively remove nutrients from the stormwater as previously approved. The well drained soils will be able to manage the volumes onsite as evidence by the site engineer's calculations.

The Engineering Department has reviewed and approved the drainage design and the Flood & Erosion Control Board approved the project on May 6, 2020. The subsurface structures have been sized to capture and infiltrate one inch of runoff. The one-inch sizing criteria is appropriate and in accordance with the Connecticut Stormwater Quality Manual (2004).

The sediment and erosion controls utilized for the house construction should provide adequate protection if they are properly maintained.

Staff feels that the project will not adversely impact the natural resources and ecosystem of the Waterway Protection Line Ordinance.

Alternatives for reduction of impacts:

1. No construction alternative.
2. Approve application with the following conditions:
    a) Inclusion of conditions from the Flood and Erosion Control Board approval of May 6, 2020.
    b) The biofiltration swale shall be installed as designed and it certified by the site engineer prior to issuance of the CCC.
    c) Bond being held for bioswale for new housed construction to also be attributed to the construction of this garage.